



## *Join the Argonne Leadership Computing Facility Team*

### **Current ALCF Open Positions**

#### **Computational Scientist**

This person will draw on a deep knowledge of high performance computational science to assist and collaborate with Leadership Science Project Teams to enable breakthrough science and engineering research at the ALCF. He or she will provide an enduring point of contact for these projects and will help mesh their computational campaign needs with facility resources.

The computational scientist will lead multidisciplinary ALCF teams to address integration, performance, and operation challenges of high performance science and engineering applications. He or she will build relationships with other supercomputer centers to address common challenges.

In addition to experience and skills in leading interdisciplinary research involving multidisciplinary scientists and engineers, this position requires comprehensive knowledge of high performance computational science, particularly in one or more of these fields (1) computational materials science (including related nanoscience areas), (2) computational biology, (3) computational lattice Quantum Chromo-Dynamics, and/or (4) computational astrophysics.

#### **Tape Storage Specialist, Sr.**

This person will operate, support, and continue to develop the petascale tape storage sub-system for the ALCF. He or she will be responsible for both hardware and software tape storage and will collaborate with others to integrate the tape sub-system with other aspects of the facility.

This position requires comprehensive knowledge of and experience with tape storage systems, and experience in managing tape storage operations and executing an automated tape backup system, including off-site storage for disaster recovery. Comprehensive experience required in troubleshooting tape storage-related issues and installing, wiring, configuring, administering, and troubleshooting fiber channel hardware and software. Considerable skills in scripting languages such as Python (preferred), Perl, and shell script required. Experience required in the use and administration of the Linux OS. Experience with Suse Linux Enterprise Edition is a plus.

#### **Storage Engineer**

This person will act as a senior storage system expert for the ALCF and will hold primary responsibility for ALCF storage systems. He or she will work closely with others to define storage solutions and will be responsible for the implementation, configuration, and tuning of present and future storage systems. He or she will identify and implement industry best practices for storage operations, troubleshooting, and monitoring of system health and performance. He or she will build and direct a three-person team and must have hands-on hardware expertise and actively participate in storage activities. Preference will go to candidates experienced with DataDirect Networks, Infiniband, Fiber Channel interconnects, and SATA disk drives.

This position requires comprehensive knowledge of current and emerging storage technologies, application-level protocols and tools for large-scale data manipulations in high-performance parallel I/O systems, advanced storage network protocols (Infiniband, Fiber Channel, SCSI, etc.), advanced scientific computing, advanced scientific I/O and data storage, and comprehensive collaborative skills.

#### **Application Performance Engineer**

The person selected for this position will work closely with ALCF INCITE science application project team members, application developers, and users to identify and isolate problems, extend functionality, and enhance application performance through algorithmic improvements, code parallelization, and performance analysis. This person will lead development of computational algorithms and performance tools for the Blue Gene system. He or she will mentor other performance engineers in collaboration with the user community. The individual will also develop a deep understanding of scientific applications from diverse science disciplines. He or she will work closely with others to support users and will lead user-education efforts.

This position requires comprehensive understanding of computational analysis, including algorithms, performance, efficiency, and scalability for high-performance computers; comprehensive knowledge of advanced scientific computing,

software design, and software methodology for high-performance computing and collaboration; comprehensive skill in the solution of computational science problems on high-performance computing systems; comprehensive awareness of scientific issues and related computational approaches in more than one scientific discipline; and comprehensive expertise in multiple high-performance computing systems and architectures.

## UNIX Database Administrator, Sr.

This person will act as database administrator for UNIX system databases, including DB2, ySql, Postgres, and Oracle databases. He or she will be responsible for installation, backup, recovery, replication, and performance tuning. He or she will develop key tools and applications and maintain development, testing, and production DB environments. The UNIX Database Administrator will act as the division database expert and ensure database security, availability, and integrity.

Required skills and experience include a comprehensive understanding of DB2 and/or MySQL databases, the ability to troubleshoot and optimize SQL databases, knowledge of database security and backup procedures, and a comprehensive knowledge of and experience with relational databases.

The qualified candidate will have experience performing all common Database Administration (DBA) tasks, and will be skilled in designing and implementing Perl or Python scripts using Perl or Python database bindings, and in application development using SQL and PL/SQL. He or she will be skilled in high-level programming languages and the software development life cycle, plus have experience building, updating, and maintaining relational objects (including tables, referential integrity, indexes, stored procedures, functions, triggers, views, etc.) with performance and scalability in mind. Experience with open source databases is highly desirable.

## Postdoctoral Appointee, Computing: Computational Sciences

Drawing on knowledge of high performance computational science, this person will introduce new techniques that substantially improve the performance or range of science and engineering addressable by petascale science applications. He or she will work closely with multi-disciplinary ALCF teams and science project teams to address the challenges of high performance science and engineering applications. The qualified candidate may partner with other petascale centers or tool development efforts to address common challenges.

The position requires comprehensive knowledge of high performance computational science, particularly in one or more of these fields: computational materials science (including related nanoscience areas), computational biology, computational Quantum Chromo-Dynamics, and/or computational astrophysics. Good communications skills (both verbal and written), collaborative skills, and skill in the solution of computational science problems using scalable parallel computers and large data systems are required.

## Executive Secretary

The person selected for this position will perform a wide range of advanced secretarial, administrative, and general support activities of a highly responsible and confidential nature to provide efficient and effective support for the director, deputy director, and the Argonne Leadership Computing Facility division. This person will set his or her own priorities, meet all deadlines with accuracy and completeness, and exercise independent judgment and discretion.

This position requires comprehensive knowledge of office administration, secretarial science, English grammar and usage, as well as excellent organizational skills, ingenuity, creativity, and the ability to solve problems independently. The incumbent will be expected to quickly gain and maintain and up-to-date knowledge of the division's projects, proposals, key contributors and sponsors. He or she also will be expected to quickly gain a working knowledge of Argonne administrative software, including HR, ES&H and QA systems.

## Other Openings

The Argonne Leadership Computing Facility team is expanding to meet the needs for increased compute and data capabilities. New positions are being added in a variety of areas, including user support, systems administration, and systems development. We encourage you to visit our website for the latest position postings.

**For more details about current and future job openings, see:**

**The ALCF website**  
[http://www.alcf.anl.gov/about/career\\_listing.php](http://www.alcf.anl.gov/about/career_listing.php)

**For more information about ALCF, please contact:**

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